

## Monoclonal Antibody to Oligodendrocytes - Ascites

<b>Alternate names:</b>	MOSP
<b>Catalog No.:</b>	AM50497SU-N
<b>Quantity:</b>	0.1 ml
<b>Host / Isotype:</b>	Mouse / IgM
<b>Clone:</b>	CE-1
<b>Immunogen:</b>	Rat glial membranes and whole brain white matter.
<b>Format:</b>	<b>State:</b> Ascites fluid
<b>Applications:</b>	<b>Immunohistochemistry:</b> 1:1,000-1:5000 <b>Immunoprecipitation.</b> <b>Immunocytochemistry.</b> Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	In neonatal rat glia this antibody AM50497SU-N stains oligodendrocytes and does not react with type 1 astrocytes, type 2 astrocytes or fibroblasts. Does not stain cultures of rat Schwann cells. In tissue sections AM50497SU-N labels oligodendrocytes and CNS myelin with no labeling of peripheral myelin. AM50497SU-N detects MOSP which is expressed at day 4-5 of neonatal rat, which is about 1-2 after the appearance of GC or sulfatide. The initial expression of MOSP occurs at the stage in development when oligodendrocytes are elaborating processes and just beginning to form membrane sheets (Mu QQ & C Dyer, 1994). <b>Species:</b> Feline, Chicken, Human, Mouse, Monkey, Rat. Other species not tested.
<b>Storage:</b>	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	1. Dyer CA, Hickey WF, Geisert EE. Myelin/oligodendrocyte-specific protein: a novel surface membrane protein that associates with microtubules. <i>J Neurosci Res.</i> 1991 Apr;28(4):607-13. PubMed PMID: 1870160. 2. Beck KD, Powell-Braxton L, Widmer HR, Valverde J, Hefti F. Igf1 gene disruption results in reduced brain size, CNS hypomyelination, and loss of hippocampal granule and striatal parvalbumin-containing neurons. <i>Neuron.</i> 1995 Apr;14(4):717-30. PubMed PMID: 7718235. 3. Philpot BD, Klintsova AY, Brunjes PC. Oligodendrocyte/myelin-immunoreactivity in the developing olfactory system. <i>Neuroscience.</i> 1995 Aug;67(4):1009-19. PubMed PMID: 7675203. 4. Maxeiner S, Krüger O, Schilling K, Traub O, Urschel S, Willecke K. Spatiotemporal transcription of connexin45 during brain development results in neuronal expression in adult mice. <i>Neuroscience.</i> 2003;119(3):689-700. PubMed PMID: 12809690.

5. Dietrich J, Blumberg BM, Roshal M, Baker JV, Hurley SD, Mayer-Pröschel M, et al. Infection with an endemic human herpesvirus disrupts critical glial precursor cell properties. *J Neurosci.* 2004 May 19;24(20):4875-83. PubMed PMID: 15152048.

**Protocols:**

**IMMUNOHISTOCHEMISTRY PROTOCOL**

This antibody has been used successfully on 30 mm, free floating, 4% paraformaldehyde fixed rat brain tissue. All steps are performed under constant agitation. Suggested protocol follows.

- 1) 3 x 10 minute washes in TBS (with or without 0.25% Triton).
- 2) Incubate for 30 minutes in TBS with 3% serum (same as host from secondary antibody).
- 3) Incubate primary antibody diluted appropriately in TBS with 1% serum (same as host from secondary antibody) (with or without 0.25% Triton) for 2 hours at room temperature followed by 16 hours at 4°C.
- 4) 3 x 10 minute washes in TBS.
- 5) Incubate with secondary antibody diluted appropriately in TBS with 1% serum (same as host from secondary antibody).
- 6) 3 x 10 minute washes in TBS.
- 7) ABC Elite (1:200 Vector Labs) in TBS.
- 8) 2 x 10 minute washes in TBS.
- 9) 1 x 10 minute wash in phosphate buffer (no saline).
- 10) DAB reaction with 0.06% NiCl added for intensification.
- 11) 2 x 10 minute washes in PBS.
- 12) 1 x 10 minute wash in phosphate buffer (no saline).

**Pictures:**

Staining of Oligodendrocytes from neonatal rat using Mouse anti-Oligodendrocytes antibody Cat.-No AM50497SU-N

